

ATTENUATOR TEMPERATURE VARIABLE CHIP (K-BAND)



DATA SHEET

PART SERIES: KTVAXX00NXXX

SHEET 1 OF 2
Dwg 1011205

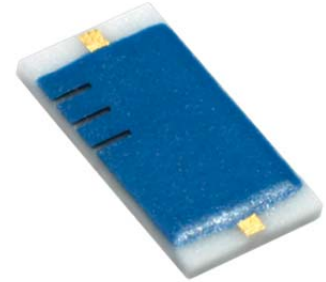
EN 16-0759
Revision H

FEATURES

- Temperature Variable
- Compact Package
- Wideband Performance
- Passive Gain Compensation
- Rugged Construction
- MIL-PRF-3933

APPLICATIONS

- Power Amplifiers
- Instrumentation
- Mobile Networks
- Point-to-Point Radios
- Satellite Communications
- Military Radios
- Up/Down Converters

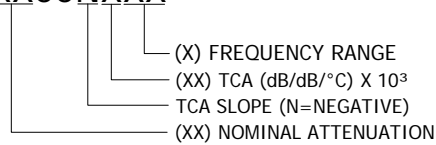


GENERAL DESCRIPTION

EMC Technology is the leading authority in temperature variable attenuators. Thermopad[®] temperature variable attenuators have been a highly reliable passive solution for over temperature gain compensation for more than 20 years. All Thermopad[®] products can be qualified for high-reliability and space applications.

ORDERING INFORMATION

Part Identifier: KTVAXX00NXXX



SPECIFICATIONS

1.0 ELECTRICAL

Nominal Impedance:	50 ohms
Frequency Range:	1=16-22GHz, 2=18-32GHz, 3=28-31GHz, 4=32-36GHz, 5=16-36GHz
Attenuation Values Available:	2-6dB in 1dB increments
Attenuation Accuracy:	@ 25°C: ± 1.0 dB
VSWR:	1.35:1 Typical
Input Power	100 mW
Temperature Coefficient of Attenuation:	-0.005, -0.006 and -0.007 dB/dB/°C
Temperature Coefficient Tolerance:	Min - 0.004 dB/dB/°C

2.0 ENVIRONMENTAL

Operating Temperature:	-55°C to +150°C
Storage Temperature:	-55°C to +150°C

3.0 MARKING

Unit Marking: Vertical "I" for each dB. I.E. 3dB="III"

4.0 QUALITY ASSURANCE

Sample Inspect Per ANSI/ASQC Z1.4 General Inspection, Level II, AQL=1.0.

Visual and Mechanical Examination for Conformance to Outline Drawing Requirements

Sample Inspection (Destructive Testing).

Select three (3) units from lot and measure DCA every 20°C over the temperature range of -55°C to +125°C; Calculate using linear regression, the slope of the curve.

Calculate TCA using the following formula:

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$$TCA = \frac{\text{Slope}}{\text{Attenuation @ 25}^\circ\text{C}}$$

Inspection in accordance with 824W107

Test Data Requirements:

No Data Required for Customer

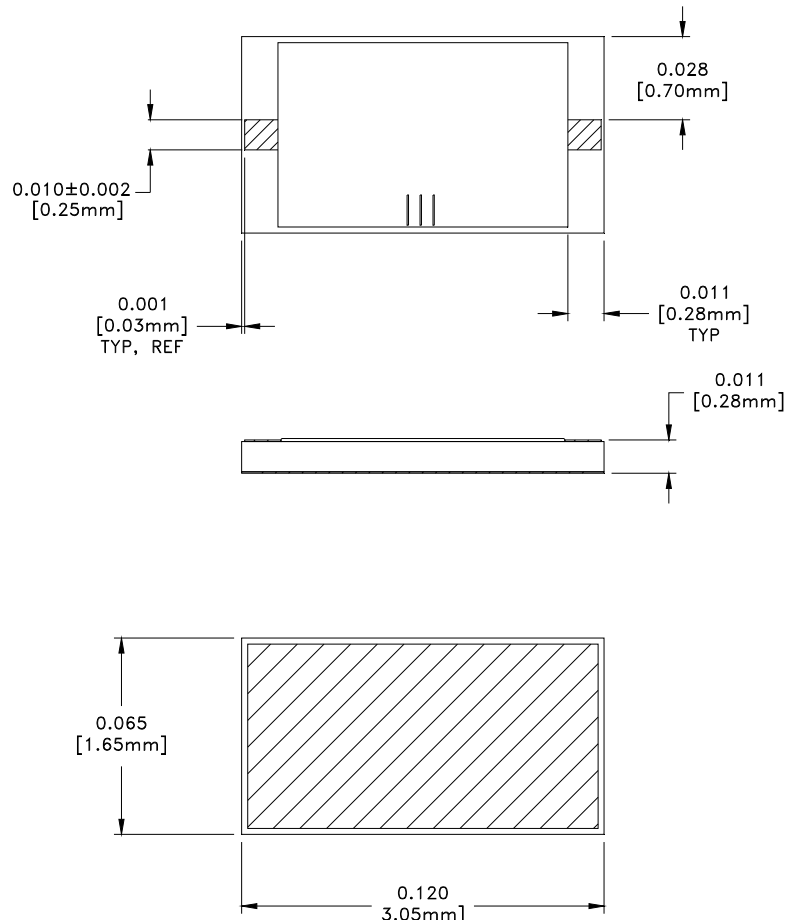
Data Retention – 24 Months

5.0 PACKAGING

Standard: Waffle

6.0 MECHANICAL

Substrate Material:	Alumina, MIL-I-10
Terminal Material:	Thick Film, Bondable Gold
Workmanship:	PER MIL-PRF-55342
Ground Plane:	Thick Film
Resistive Element:	Thick Film
Metric Dimensions:	Provided for reference only



Unless Otherwise Specified: TOLERANCE: X.XXX = ± 0.005